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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,900	12/03/2003	Jonathan F. Hester	58770US002	4176
32692	7590	12/13/2005	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			LONEY, DONALD J	
			ART UNIT	PAPER NUMBER

1772

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/726,900

Applicant(s)

HESTER ET AL.

Examiner

Donald Loney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11, 12 and 15-20 is/are rejected.
- 7) ☐ Claim(s) 9, 10, 13 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09/09/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: See Continuation Sheet.

Continuation of Attachment(s) 6). Other: copy of translation for JP 07-016591 and JP 11-244672 .

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-8, 11, 12 and 15-20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 11 of copending Application No. 10/438090 as presented in the last office action, mailed May 31, 2005. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are broader than the ones of serial No. 10/438090 in that they do not contain a porous membrane, but do contain the manifold in claim 11. The manifold can be considered permanently attached to the plates if it is never removed therefrom.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-8, 15 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Wataya et al (5651889) as presented in the last office action, mailed May 31, 2005.

Wataya et al teaches at least two spaced flat membranes 102, with spacers there between (sections at the top and bottom of the figures that space the plates 102), wherein what can be considered a manifold 3 is attached thereto. This rejection is to specifically address the limitation of claim 6 wherein two flow channels 301, 302 are in what can be considered the manifold.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 11, 12, 16, 17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Thompson et al or Wataya et al in view of Sirkar (4789468) as presented in the last office action, mailed May 31, 2005.

The primary reference teaches the invention substantially as recited except for the second manifold and/ or additional manifolds attached to the module. See the 35 U.S.C. 102 rejection above.

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Sirkar teaches to attach a two manifolds 122, 124 to a membrane modules in order to have an inlet and outlet manifold for transfer across the membranes. Refer to figure 3 and 4 along with column 9 lines 3-22.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to the primary references to include a second manifold and/or additional manifolds on the module, as taught by Sirkar, for the purpose of providing additional ports to the module (i.e. inlet and outlet ports). Two arrange two of the modules per claim 19 would be obvious since it would involve a mere duplication of parts. The frame, to hold the unit together, per claim 20 is show at 101 in Wataya et al.

7. Claims 1-8,11,12 and 15-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kopf (5868930).

Kopf discloses a membrane module (figures 1 and 2) comprising at least two flat sheet elements (14a,14b) wherein the elements have flow channels (any of 24, 26 or 80) and a manifold(s) (MP_1 , MP_2) attached to the elements that control flow through openings O and 1 in figure 18. The elements are spaced by sheet 12 per claims 2 and 15. The flow arrows shown in figure 18 is/are the means for gas bubbles to flow per claim 3. Claims 6 and 7 are shown as flow channels O and PT in the manifold in figure 18. The second manifold per claim 11 is show at 1 in figure 18. Second manifold MP_2 is in fluid communication with the other manifold through the unit per claim 16. Two manifolds are disclosed at column 17, lines 11-15 per claim 19. Rods 84 in figure 5 can be considered the frame per claim 20 supporting the elements.

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8. Claims 1-6, 15 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by either JP 07016591 or JP 11-244672 cited by the applicant.

JP 07016591 discloses a membrane comprising at least two flat elements 1 and a manifold connected thereto (paragraph [0017]). The elements contain interior flow channels due to the fact that a plastic netting 12 is disclosed as between flat sheets 11. The elements are spaced as show in figures 1 and 4 per claims 2, 15 and 18. Two membranes are shown per claim 19 since there are at least four shown in figures 1 and 4. A frame is disclosed in paragraph [0017]. JP 11-244672 discloses a similar arrangement as JP 07016591 in that a mesh 11 is sandwiched between two flat plates 12 in order to form the elements. The flow channels are formed in the interior of the element since the inner layer is a mesh. Refer to figures 3 and 7-10 along with the corresponding paragraphs thereto. The examiner has included English translations of these documents for the applicants' convenience.

Allowable Subject Matter

9. Claims 9, 10, 13 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims as previously indicated.

10. The following is a statement of reasons for the indication of allowable subject matter: Claims 9, 13 and 14 are deemed allowable over the prior art since the prior art

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fails to teach the perforations in the manifold per claims 8 and 13 or that the manifold be beveled or angled per claim 14.

Response to Arguments

11. Applicant's arguments filed September 28, 2005 have been fully considered but they are not persuasive. The applicant argues that Wataya et al does not teach a permanently attached manifold. The examiner does not see a structural difference between the prior art and the claimed invention due to said "permanent" limitation. A removable manifold can be considered permanently attached if one never removes it. Also, a permanent one could be removed by cutting it off, therefore, the claims fail to teach a structural limitation which would distinguish from the prior art.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

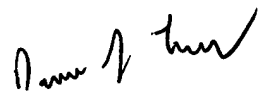
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald Loney whose telephone number is (571) 272-1493. The examiner can normally be reached on Mon, Tues, Thurs and Fri. 8AM-4PM, flex schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Donald Loney
Primary Examiner
Art Unit 1772

DJL:D.Loney
12/09/05